Trey DeaBueno

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Personal Statement

My love for programming began unconventionally, modifying my favorite game: Minecraft. I was very passionate about the game and wanted to create a public, custom-made server. I started small, building custom scripts and tweaking existing open-source mods before the age of twelve. I was determined to fix my problems with other public servers and create a revolutionary new experience. As time passed, I became more and more ambitious. I moved from simple modifications to developing complex server-side modifications. At the same time, I started sharing my modifications online.

My first publicly available open-source modification was called Command Blocker. As the name implies, it blocked players from executing a customizable set of commands on the server. It was built to further anonymize the software the server runs on. In hindsight, I was implementing cybersecurity practices without knowing what cybersecurity was. My list of modifications grew, and I realized that my contributions to the ecosystem were making significant changes. People requested features, modified the source code, and created pull requests, which inspired me to do the same for other projects.

This experience taught me many important lessons. I realized the power of open collaboration and knowledge sharing: a single contribution can ripple and enable countless others. The more resources, tools, and guidance we share, the more accessible innovation is to the general public. This forms a cycle where the entire ecosystem thrives by creating new projects and improving existing ones. I also realized that passion-driven projects often open doors to unexpected opportunities.

Looking ahead, I aspire to build on this foundation and apply it to my future projects. Whether creating developer tools, working with others on a team, or innovating anywhere else in my day-to-day life, I want to empower others and inspire them to do the same. To me, software development has always been more than just writing code; it is about collaborating, innovating, and solving problems as a team. Just as others influenced me, I hope to do the same—to create, inspire, and help others realize their own potential through the power of technology.

Innovation Statement

I value empowerment because too many people do not have a voice when they deserve to speak for themselves. Empowerment involves more people in decisions and leads to stronger solutions to problems through the consideration of more diverse perspectives. In these ways, the concept of empowerment also promotes inclusivity and teamwork.

As a software engineer, I believe that open-source projects are a key aspect of empowering others. Because of this, I spend my time working on my own open-source projects. These projects allow anyone to contribute, regardless of their location, experience, or available resources. Open-source projects also allow people to easily learn about them and create their own. Therefore, these kinds of projects apply well to my values of empowerment, accessibility, and inclusion.

However, I do not only focus on my own projects. As a part of a community of like-minded open-source creators, I support other people's projects in every way I can. By creating and collaborating on these tools, I can help empower future innovators and lower the barrier to entry. Further, my work promotes transparency in my actions (because anyone can read my work), collaboration (as anyone can contribute to my work), and continuous improvement (due to the fact that I and others can help to improve my work).

Knowledge, inclusivity, and accessibility should be available to all. I design my software and work with others while always keeping these core principles in mind. These principles allow me to further empower others. The art of innovation lies in recognizing the need for constant learning and using shared experiences to transform ideas into impact. Innovation does not come from a single breakthrough. Instead, it requires continuous improvement and consideration from a diverse set of perspectives. Because of this, knowledge, inclusion, and accessibility are all necessary concepts to value as an innovator.

Collaboration is also a necessary aspect of empowerment. I promote collaboration in my projects by providing spaces for people to ask questions and seek support, which ensures anyone can become involved. I make it my goal to be a knowledgeable resource to others and contribute to a culture where technology is used as a tool for progress rather than a privilege for the few. Acting as a mentor to new group members and providing tutorials to those who need them are just some ways that I try to empower other people so that they can collaborate confidently and effectively. Ultimately, I want to drive positive changes through the use of technology. By creating an environment promoting accessibility, inclusivity, and collaboration, I am able to create lasting impact that empowers myself and others to innovate, learn, and improve the future.

Education

University of Colorado Colorado Springs (UCCS)
Bachelor of Innovation™ in Computer Science, ABET Accreditation
Cross-Discipline Core in Business
Graduating: May 2025
Cumulative GPA: 3.83
Scholarships: Bluestaq, COSI Engineering, Cybersecurity
Relevant Coursework:

- CS 1150 – Principles of Computer Science
- INOV 1010 – The Innovation Process
- MATH 1060 - Trigonometry
- CS 1450 – Data Structures and Algorithms
- CS 2060 – Programming with C
- ENTP 1000 – Intro to Entrepreneurship
- MATH 1350 – Calculus I
- CS 2080 – Programming with UNIX
- CS 2160 – Comp Org & Assembly Language
- ECON 1010 – Introduction to Microeconomics
- INOV 2010 – INOV Team: Analyze & Report
- MATH 1360 – Calculus II
- BLAW 2010 – Business/Intellectual Property Law
- CS 3050 – Social and Ethical Implications of Computing
- CS 3060 – Object Oriented Programming with C++
- ECON 2020 – Introduction to Macroeconomics
- INOV 2100 – Tech Writing, Proposals, & Presentations
- INOV 3010 – INOV Team: Research & Execute
- CS 3160 – Concepts of Programming Languages
- CS 4200 – Computer Architecture I
- MGMT 3300 – Intro to Management & Organization
- PES 1110 – General Physics I – Calculus Based
- CS 2020 – Intro Stats for Data Analysis
- CS 2150 – Discrete Structures
- CS 3110 – Programming the Mobile Web
- CS 4500 – Operating Systems I
- PES 1120 – General Physics II
- CS 3400 – UX/UI Design
- CS 4220 – Computer Networks
- CS 4300 – Advanced Software Engineering
- CS 4720 – Design & Analysis of Algorithms
- MGMT 4370 – Organization Development & Change
- CS 2300 – Computational Linear Algebra
- CS 4420 – Database Systems I

- INOV 4010 – INOV Team: Design & Lead
- INOV 4500 – Innovation Capstone
- MGMT 4110 – Experiences in Leadership

The Classical Academy (TCA) – *Colorado Springs, CO*
High School Diploma | May 2021

Academic Experience

Innovation Teams Projects

INOV 4010 – INOV Team: Design & Lead – January – May 2025

- Client: Resume Footprint
- Scope: Design and document a proof-of-concept design for an AI career hub.
- Outcome: Researched market analysis, monetization strategies, and gamification strategies and developed mockup pages, a prototype website with real-time ChatGPT API calls, and a presentation to give to a development team to create the project.

INOV 3010 – INOV Team: Research & Execute – January – May 2023

- Client: UCCS Digital Humanities Center
- Scope: Design and document the initial stages of cross-platform mobile app development.
- Outcome: Developed a prototype Android app using Jetpack Compose, connected to a Firebase database, and presented strategies to continue development based on completed wireframing and user feedback.

BLAW 2010 – Business/Intellectual Property Law – January – May 2023
Created a patent for an all-terrain wheelbarrow then reenacted the entire process of official submission.

INOV 2100 – Tech Writing, Proposals, & Presentations – January – May 2023
Drafted a grant proposal for local non-profit Silver Key Senior Services, helping secure $10,000 in funding.

INOV 2010 – INOV Team: Analyze & Report – September – December 2022

- Client: UCCS Office of Sustainability
- Scope: Create an electric vehicle support plan for UCCS.
- Outcome: Documented in-demand electric vehicle parking locations and determined optimal locations for installing electric vehicle chargers, successfully enhancing campus sustainability efforts.

Computer Science Course Projects

CS 4300 – Advanced Software Engineering – August – December 2024
Created a web-based RPG where each completed Canvas assignment powers up your character.

- Developed using Django, Bootstrap, and Canvas REST API for assignment-based powerups

- Implemented user authentication with secure token management, and Google Gemini generated battle stories

CS 3110 – Programming the Mobile Web – January – May 2024
Designed an accessible mobile-first web trivia game with real-time multiplayer in a team of three.

- Created a full-stack socket application with a Nuxt and Tailwind CSS frontend and TypeScript server

Technical Skills

Programming (Proficient): Java, Python, TypeScript, Kotlin, Full-Stack Development, Nuxt (Vue.js)
Web & Mobile Development: Angular, SQL, Jetpack Compose (Android), Tailwind CSS
Build & Automation Tools: AWS, Google Cloud, Apache Maven, Gradle, GitHub CI/CD
Collaboration & Methodologies: Git Version Control, Agile, Scrum, Teamwork, Problem Solving
Research: Software Development Life Cycle, Data Analysis, Accessible Design

Work Experience

UCCS Digital Humanities Center – Student Intern
November 2024 – May 2025

Bluestaq – Software Engineering Intern – *Colorado Springs, CO*
June 2024 – August 2024
Collaborated with a group of software engineers to finish a year-long project for gathering file metadata.

- Created multiple Angular (TypeScript) webpages to better inform end-users on account information
- Created comprehensive benchmarks and tests with Java, Python, and Docker, deployed to AWS

UCCS Digital Humanities Center – Student Intern
November 2023 – May 2024
Developed a WordPress site featuring an accessible design, which helped secure multiple grants.

Bluestaq – Software Engineering Intern – *Colorado Springs, CO*
June 2023 – August 2023
Updated the legacy account codebase to be more closely integrated into the company's key products.

- Implemented the Software Development Life Cycle based on Agile and Scrum methodologies
- Analyzed the cost for all services and created an Excel report to inform users of service expenses

McDonald's – Manager – *Colorado Springs, CO*

Supervised 20 employees while maintaining quality standards and ensuring customer satisfaction.

- Responsible for planning shifts, money management, and safety of all employees
- Coached new hires, emphasizing problem solving and teamwork in time-sensitive tasks

Community Involvement & Leadership

Fellowship of Game Enthusiasts – UCCS Club Treasurer
September 2023 – May 2025
Managed club funds, helped organize events, and facilitated community engagement for UCCS's board game club.

Awards & Recognitions

- Dean's List – Fall 2023, Spring 2024
- President's List – Fall 2021, Spring 2023, Fall 2024

Certifications

- CompTIA Security+ CE (Expires: 09/2027)

Projects & Personal Initiatives

Game Mod Developer – Personal Project
February 2021 – Present
Sole maintainer of a modification for the game "Minecraft" that improves debug menu clarity.

- Updated an existing game mechanic to allow customization in an open-source GitHub project
- Programmed using Java, Kotlin, Gradle, and GitHub CI/CD, the mod has over 40 million downloads